

ABSTRACT

The present invention provides a low-carbon resulfurized freemachining steel product excellent in machinability typified by finished surface roughness even though toxic Pb or special elements such as Bi or Te are not added, and a suitable production method thereof. A steel product has a specific composition, has contents of Mn and S satisfying the following conditions: $0.40 \leq \text{Mn} \cdot \text{S} \leq 1.2$ and $\text{Mn}/\text{S} \geq 3.0$, and contains a ferrite-pearlite structure as the metallographic structure, in which the average width (μm) of sulfide inclusions in the steel product is $2.8 \cdot (\log d)$ or more, wherein d (mm) is the diameter of the steel product, and pro-eutectoid ferrite in the metallographic structure has a hardness HV of 133 to 150 or a difference in deformation resistance at a strain of 0.3 between 200°C and 25°C is 110 MPa or more and 200 MPa or less, the deformation resistances being determined in a compression test at a deformation rate of 0.3 mm/min.